Infrastructure and Growth Leadership
Advisory Group Report to Steering Committee
May 29, 2015

Membership List

Advisory Group Member, Organization	Designee
The Honorable Matthew Surrency, Mayor, City of Hawthorne (representing Florida League of Cities)(Chair)	
The Honorable Susan Haynie, Mayor, City of Boca Raton (representing Metropolitan Planning Organization Advisory Council) (Vice Chair)	
Alice Ancona, Florida Chamber of Commerce	
Harry Barley, MetroPlan Orlando (representing Metropolitan Planning Organization Advisory Council)	
Janet Bowman, The Nature Conservancy – Florida Chapter	
David Bredahl, Florida Engineering Society	
Dale Calhoun, Florida Natural Gas Association	
Karen Deigl, Florida Public Transportation Association	Lisa Bacot
Jim Ely, TEAM Florida	
Marc Hoenstine, Duke Energy	
Steve Holmes, Florida Commission for the Transportation Disadvantaged	
Jim Murley, South Florida Regional Planning Council (representing Florida Regional Councils Association)	
Sam Poole, Urban Land Institute	
Pete Petree, Florida Railroad Association	
Chris Stahl, Florida Department of Environmental Protection	
Lt. Col. Troy Thompson, Department of Highway Safety and Motor Vehicles	Lt. James Hightower

Key Issues & Ideas/Approaches Identified by the Advisory Group

Key Issue 1: Maintain transportation system in good condition

Ideas and Approaches:

- Expand from a traditional focus on highways to proactively manage transportation assets for all modes, including:
    - Assess risks and other uncertainties, e.g., service interruptions, changes in vehicle size and weight, changes in truck and passenger traffic from major developments, and climate trends;
    - Improve the availability and consistency of infrastructure data across modes and levels of government; and
    - Align investments to achieve acceptable condition for infrastructure for all modes and levels of government.
- Adapt maintenance practices to support changes in transportation infrastructure priorities, including:
    - Maintain new and emerging technologies, e.g. intelligent transportation systems, vehicle charging stations, solar highways, etc.;
    - Recognize the potential impacts of larger freight and commercial passenger vehicles, e.g., trucks, transit vehicles, trains, ships, and airplanes; and
    - Ensure maintenance practices remain flexible as customer preferences shift, e.g., recognize potential growth in transit ridership and in travel on navigable waterways.

Key Issue 2: Innovate to improve transportation system performance

Ideas and Approaches:

- Promote more efficient freight flows and logistics patterns, including:
    - Facilitate a shift of freight movements to off-peak times when this approach works for logistics patterns and fits within the community context;
    - Accommodate both point to point and hub and spoke distribution models;
    - Improve the balance of inbound and outbound freight shipments to and from Florida; and
    - Integrate technology, such as intelligent transportation systems and truck platooning, to promote efficient freight movement.
- Develop innovative transportation solutions by harnessing software and data and its connection to the physical world, including:
    - Support automated, seamless, origin to destination route planning for freight and people that includes options for all users, e.g., transit riders, visitors, freight forwarders, etc.;
    - Use emerging technologies such as intelligent transportation systems, dynamic adjustment of traffic patterns, connected vehicles, automated passenger and freight vehicles, and real time tracking of containers and other assets;
    - Improve parking through technology, e.g., apps to show available spots, automated vehicles that can park themselves;
    - Implement the use of a universal, user friendly payment system for all transportation modes (tolls, bus or train fare, bike share or car share fees, parking fees, etc.);
    - Consolidate and streamline financial transactions; and
    - Improve incident management through technology and information.
- Support the use of alternatives to traditional transportation fuels and energy sources, including:
    - Collaborate with public and private partners including utilities to identify, map, develop, and provide access to facilities that provide alternatives to traditional transportation fuels;
    - Research potential alternatives to traditional fuels and identify strategies for encouraging use of these energy sources in the transportation sector;
    - Provide incentives for market-driven installation of facilities providing alternatives to traditional fuel; and

- Generate energy through pavement sensors, solar highways, and solar panels in medians or on noise abatement walls.

- Develop innovative multi-purpose, multimodal terminals and corridors including:

  - Emphasize optimizing existing facilities and right of way over developing new facilities and right of way;

  - Plan and develop investments in new terminal and corridor capacity that are consistent with regional and local visions and plans and are anticipated to provide a positive return on investment;

  - Extend and integrate managed lanes into broader systems, including potential conversion of general purpose lanes to managed lanes as their use continues to evolve;

  - Develop new corridors or designate portions of existing highway or rail corridors as "freight only" in targeted locations to improve safety, accommodate growth in demand and vehicle size, and help focus maintenance investments;

  - Coordinate use of right of way to support multiple, compatible uses, e.g., multiple modes, utilities, and communication infrastructure;

  - Emphasize multimodal terminals to improve choice and connectivity;

  - Expand the capacity of major freight and passenger hubs and corridors to accommodate larger freight and passenger vehicles while staying sensitive to local context;

  - Develop multi-level infrastructure, particularly as an option in built-out urbanized areas, e.g., elevated bicycle, transit, or express lanes; and

  - Encourage infrastructure that supports public/private investments in the commercial space industry.

- Research, develop, and deploy state-of-the-art materials, technology, and methodologies into all phases of transportation infrastructure design, construction, maintenance, and operations (e.g., visualization, 3D printers, self-healing pavement, solar highways).

- Improve customer service by streamlining regulatory processes (e.g., vehicle registrations, oversize/overweight vehicle permitting, safety and weight inspections, customs inspections) using technologies like electronic credentialing, electronic screening for trucks and other vehicle to vehicle or vehicle to infrastructure connections

Key Issue 3: Expand modal choices for people and freight

Ideas and Approaches:

- Improve the functionality of multimodal transportation systems to reflect the context of regional and community visions and land use decisions.
    - Proactively and comprehensively plan for land use and economic development and ensure that transportation infrastructure is designed to support these decisions using all appropriate modes including walking, bicycling, and transit.
- Provide infrastructure and services for shorter distance trips (e.g., circulators, personal rapid transit, on-demand transit).
    - Improve last-mile transit solutions that use walking, bicycling, and shared or automated vehicles to deliver people to transit stations; and
    - Plan and develop transit, bicycle, and pedestrian facilities to deliver people within walking distance of trip origins and destinations.
- Provide infrastructure and services for longer distance trips (e.g., air travel, interregional rail and bus, waterways).
    - Promote the increased use of coastal and inland waterways.
    - Provide cost-effective, competitive intrastate travel using multiple modes (roadways, air service, rail, transit) that address changing market demands, technologies, and business models;

Key Issue 4: Improve transportation connectivity

Ideas and Approaches:

- Improve synchronization and connectivity between transportation modes through better design, including:
    - Encourage automated trip planning, schedule coordination, co-located terminals, and integrated payment for passenger travel; and
    - Improve connectivity among local transit systems, between local and regional transit systems, and between transit and other modes.
- Improve connectivity between communities and regions within Florida, including:
    - Improve the efficiency of connections between transportation hubs and economic activity centers (airports, seaports, city centers, jobs centers, spaceports, intermodal logistics centers, etc.);
    - Provide incentives for private industry to develop priority connections between communities or regions where gaps exist;
    - Improve pedestrian, bicycle, and transit connectivity from a local to interregional scale to provide access to jobs, retail, and other destinations;
    - Invest in high capacity passenger rail that connects urban centers with other modes throughout the state; and
    - Proactively plan for right of way/corridor/land use needs far into the future (all modes freight and passenger, pipeline, communications conduit, etc.).
- Improve connectivity between Florida and other states and nations, including:
    - Improve truck and rail corridors to adjacent states;
    - Provide incentives for private industry to improve direct service to and from Florida's seaport and airports.

Key Issue 5: Improve the transportation system's resiliency to extreme weather events and climate trends

Ideas and Approaches:

- Continue to support research on extreme weather and climate trends and potential impacts on infrastructure.

- Incorporate climate trends into asset management planning and risk modeling for all modes to balance investment decisions against the risk of damage.

    - Adapt and maintain existing infrastructure in coordination with utilities and other partners to reduce the magnitude and consequences of damage and disruption as a result of future extreme weather events and climate trends.

    - Provide more diversity in the system by providing multimodal options for evacuation;

    - Create more inland distribution centers to reduce the vulnerability of the freight system; and

    - Retrofit existing critical infrastructure that is required to support existing development in vulnerable areas.

- Coordinate with water management districts to store, process, and deliver stormwater runoff from transportation infrastructure for use in future water supply.

- Coordinate with cities, counties, and other agencies when making decisions about where to locate new infrastructure and new development to consider the risks of investing in vulnerable areas, including:

    - Incorporate the risk of climate trends and extreme weather events into long-range planning, design, and investment decision-making practices.

    - Work with local counties and cities to understand how the climate trends could impact proposed locations for new development and the ability to service these investments through transportation investments.

Implementation Issues as Defined by the Advisory Group

- **Collaboration and coordination** among all partners to deliver better infrastructure more efficiently, e.g., partner with utilities to identify where alternative fueling stations are located and identify storm plans; coordinate with local governments on land use decisions.

- Ensuring sufficient and reliable **funding** for transportation into the future, including evaluating alternatives to traditional gas tax as a revenue source, e.g., vehicle miles traveled and other user fees.

- Adapting to changing **technology** and continuing to **innovate**.

- Focus on **research and evaluation** of trends and infrastructure alternatives, e.g., research and explore coming maintenance, technology, and climate trends; evaluate the **return on investment** of all major decisions.

- Identify and **overcome barriers to implementation**, e.g., remove barriers for installation of alternatives to traditional fuel charging stations on state highways.

- Ensure a strong **tie to economic development** with all infrastructure investment decisions.

- **Optimize existing infrastructure** before building new.